

inheritance symbol **703**. The event script symbol **611** is shown again in OED **700**, within the circle **701**. The method that is invoked by event script **611** is represented by method symbol **707**, labeled START RESERVATION PROCESS, which is the process that will, among other things, open the RESERVATIONS window.

[0075] The fact that flight plan records **291** will appear within the frame **290/690** is represented by drawing a suitably labeled data structure symbol **704** outside of the circle **701** and connecting it to the circle by a line. The definition of the flights results data structure **704** is not shown in this diagram, but preferably, is disclosed in separate documentation. By way of example, the data that comprises a flight results record would include (1) days of departure, (2) flight number, (3) departing time, (4) arrival time, (5) departing city, (6) arrival city, (7) class code, (7) number of stops, and (8) flight duration.

[0076] The web page **200** is a part of a larger system, i.e., a web site that includes several other pages. Thus, while one may choose to represent just web page **200** using the present invention, an architect building a website for booking flights or an individual documenting such software most likely would use the present invention to represent the entire website. In that case, he or she would create a top-level OED representing the entire website. An exemplary top-level, system OED **800** for a flight booking website including page **200**, among others, is shown in FIG. 8.

[0077] As shown in OED **800** of FIG. 8, the overall website application is represented by an appropriately labeled system symbol **801** drawn within a circle **802**. All of the windows that can form part of the various web pages of the website are drawn and are connected to the circle **802** by lines. These windows include the main FLIGHTS window **201/501** and the FLIGHTS RESULTS window **201b/601** previously described in detail. They also include the previously mentioned, but not shown, RESERVATIONS window **804** within which a user of the website may actually book reservations. In addition there is an AIRLINE PHONES window represented by window symbol **806**, which, for example, will display the telephone numbers for the various airlines and is opened in response to the user clicking on the PHONES button **210/510** in the main flights window **201a**. There also is a CALENDAR window, represented by window symbol **808**, which will display a calendar that the user can consult to figure out his or her desired flight dates. This window is opened in response to the user clicking on the CALENDAR button **216/516** in the main FLIGHTS window **201a/501**. There also is a HELP window, represented by window symbol **810**, that offers a variety of help functions to the user. This window is opened in response to the user clicking on the HELP button **218/518** in the FLIGHTS window. A NEWS window, represented by window symbol **812**, is opened in response to the user clicking on the NEWS button **214/514** in the FLIGHTS window **201a/501** and provides current news articles or links to news related websites. A CITIES window, represented by window symbol **814**, shows a list of cities and may have functionality to help users choose cities to fly to and/or from, such as searching cities by country or time zone. That window is opened in response to the user clicking on the CITIES button **208/508** in the FLIGHTS window. A REWARDS PROGRAM window represented by window symbol **816**, shows information on rewards programs offered by the various airlines and is

opened in response to the user clicking on the PROGRAMS button **212/512** in the main FLIGHTS window.

[0078] Also shown in OED **800** is a method **809** for validating the user's password. This is shown in this OED because it is a program that the architect decided was to be universally available to the entire system website.

[0079] In addition, all of the flight information that is necessary to allow users to book flights must be obtained from an appropriate resource. In actuality, there is a service available on the Internet (herein termed HUB) that provides all current available flight information for essentially all airlines worldwide, including seat availability, seat price, etc. Thus, a data transfer symbol **811** is shown connected by a line to the circle **802** to represent the fact that a data transfer of this information from the remote HUB website is needed to access this information. In addition, the website will need to access software on the remote HUB website in order to download this information. This is represented in the diagram by showing a remote link symbol **813** connected to an application symbol **815** labeled MAIN FLIGHTS HUB APPLICATION.

[0080] Also shown is a database **817**. This represents the fact that the website will also access information from a local database. Particularly, some of the information downloaded from the HUB website will be cached on a local database (and updated periodically) in order to speed access to the necessary data. For instance, the list of existing flights will not change often, and, therefore, might be cached on the local database. On the other hand, when actually booking a reservation, it will likely be necessary to access the HUB website contemporaneously in order to determine if seats available on a selected flight and the price of the seat since that information can change by the minute or second.

[0081] Each window shown in OED **800** of FIG. 8 should have its own OED (most likely several OEDs, as was the case for FLIGHTS RESULTS window **201b**) that sets forth the details of that window. However, we have not reproduced them all for this specification.

[0082] When an overall application system is represented in a plurality of interrelated OEDs (as will typically be the case), it may be advisable to include as part of the object symbol labels references disclosing the other diagrams within which that object appears. Even more preferably, such a reference also should disclose whether the other OEDs show the object in more detail or less detail (at a higher or lower level of abstraction) and/or whether the object is the main object of the referenced OED.

[0083] As previously noted, rules may vary depending on the particular embodiment of the invention. However, there are some rules and recommendations that will generally be beneficial to follow. For instance, any object that contains other objects, unless very simple, should have its own OED. Also, it is generally advisable to represent inheritance in the diagrams. Further, static objects do not necessarily need to be represented in the diagrams given that they typically are simple. Particularly, they do not execute anything or have any events or business rules assigned to them. Their natures often will be self-explanatory from the remaining elements of an OED and may require no further exposition to enable a programmer to write the corresponding code.